

REMARKS

Claims 1-16 are all the claims pending in the application. Reconsideration and allowance of all the claims are respectfully requested in view of the following remarks.

Claim Objections

The Examiner objected to claims 1-16 because of informalities. Specifically, the Examiner noted that the claims set forth a “bearing effective clearance”, but Applicants’ arguments are directed to an “effective radial clearance”. Applicants respectfully traverse this rejection because the claims are clear as written, regardless of what Applicants have argued. Specifically, the terms “bearing effective clearance” and “initial radial clearance” are clear as written for the same reasons as presented in the Amendment filed on January 9, 2003.

Claim Rejections - 35 U.S.C. § 103

The Examiner rejected claims 1 and 9 under §103(a) as being unpatentable over JP-1122753 (using US Patent 6,170,625 to Tanaka as an English equivalent) (hereinafter Tanaka) in view of JP-2000-119673 (using US Patent 6,329,326 to Iso et al. as an English equivalent) (hereinafter Iso) and further in view of US Patent 5,655,844 to Takano (hereinafter Takano). Applicants respectfully traverse this rejection for the following reasons.

Claim 1 sets forth a rolling bearing apparatus comprising: a rolling bearing including a plurality of rolling elements held between an inner ring and an outer ring; wherein the rolling bearing apparatus is configured so that a rotary body and a shaft are connected together by a clutch mechanism; when the rotary body and the shaft are connected, the rolling bearing can be used on receiving a rotation load, while a relative rotation between the inner ring and the outer ring is zero, wherein an initial radial clearance between the inner and outer rings is set such that a bearing effective clearance when the rolling bearing is incorporated between the rotary body and the shaft can provide a positive value.

The provision of a positive radial clearance allows the rolling elements to move even when the inner and outer rings do not move relative to one another, but are rotated together. Further, the advantage of such movement of the rolling elements is that they are then not

compressed at the same portion of the inner and outer races, thereby preventing damage to the races.

First, Takano does not disclose the structure of the present invention, but describes: (a) that a “clearance of rolling bearing is set to be a positive value”; and (b) “the life time of the rolling bearing is extended.”

However, Takano does not teach or suggest that there is solved the problem of the rolling bearing used on the condition that the rolling bearing receives a rotation load, while a relative rotation between said inner ring and said outer ring is zero. Therefore, there is no motivation for providing Takano’s clearance in the bearings of Tanaka’s one-way clutch.

Further, in Takano, a rolling bearing is disclosed in order to solve the problem of using a rolling bearing for a screw compressor in industrial machinery. Therefore, Takano does not provide any teaching or suggestion for providing such a bearing in a one-way clutch, i.e., for achieving the structure of the present invention by incorporating the disclosure of Takano into Tanaka from the viewpoint of application and solved problem of the invention.

Second, Tanaka discloses that the structure of a one-way clutch is commonly used, but does not provide any motivation for including a bearing having an effective clearance as set forth in Applicants’ claim 1.

Third, the Examiner cites Iso as teaching the use of grease as a lubricant. But Iso does not teach or suggest anything with respect to a positive effective clearance in a bearing.

In sum, there is no motivation for combining the references as suggested by the Examiner. Instead, the Examiner picks and chooses elements from the prior art, using the claims as a guide, in an attempt to reconstruct Applicants invention. This, she cannot do. After all, “[i]t is impermissible to use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious.” *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ.2d 1780, 1784 (Fed. Cir. 1992)(citing *In re Gorman*, 933 F.2d 982, 987, 18 USPQ.2d 1885, 1888 (Fed. Cir. 1991)). Further, it is not obvious to selectively pick and choose elements or concepts from the various references so as to arrive at the claimed invention by using the claims as a guide. *Ex Parte Clapp*, 227 USPQ 972 (Bd. Pat. App. & Interf. 1985).

In light of the above, this rejection is believed to be in error and should be withdrawn.

The Examiner rejected claims 2 and 10 under §103(a) as being unpatentable over Tanaka in view of Iso and Takano, and further in view of US Patent 4,371,220 to Brucher (hereinafter Brucher). Applicants respectfully traverse this rejection for the following reasons.

As noted above, the Examiner's attempted combination of Tanaka, Iso, and Takano, is improper. Brucher does not teach anything that would make the Examiner's attempted combination proper. Accordingly, this rejection is believed to be in error and should be withdrawn.

Further, the Examiner's application of Brucher is inappropriate. Specifically, Brucher is directed to a thrust bearing, and the clearance the Examiner relies upon is that between a lubricant dispensing member and the shaft; it is not a radial clearance between the rolling element and its raceway, as set forth in claims 2 and 10.

The Examiner rejected claims 3 and 11 under §103(a) as being unpatentable over Tanaka in view of Iso and Takano, and further in view of US Patent 4,629,337 to Teramachi (hereinafter Teramachi). Applicants respectfully traverse this rejection for the following reasons.

As noted above, the Examiner's attempted combination of Tanaka, Iso, and Takano, is improper. Teramachi does not teach anything that would make the Examiner's attempted combination proper. Accordingly, this rejection is believed to be in error and should be withdrawn.

The Examiner rejected claims 4 and 12 under §103(a) as being unpatentable over Tanaka in view of Iso and Takano, and further in view of Brucher and Teramachi. Applicants respectfully traverse this rejection for the following reasons.

As noted above, the Examiner's attempted combination of Tanaka, Iso, and Takano, is improper. Brucher and Teramachi do not teach anything that would make the Examiner's attempted combination proper. Accordingly, this rejection is believed to be in error and should be withdrawn.

- The Examiner rejected claims 5 and 13 under §103(a) as being unpatentable over Tanaka in view of Iso and Takano, and further in view of US Patent 4,465,195 to Dreschmann et al.

(hereinafter Dreschmann). Applicants respectfully traverse this rejection for the following reasons.

As noted above, the Examiner's attempted combination of Tanaka, Iso, and Takano, is improper. Dreschmann does not teach anything that would make the Examiner's attempted combination proper. Accordingly, this rejection is believed to be in error and should be withdrawn.

The Examiner rejected claims 6 and 14 under §103(a) as being unpatentable over Tanaka in view of Iso and Takano, and further in view of Brucher and Dreschmann. Applicants respectfully traverse this rejection for the following reasons.

As noted above, the Examiner's attempted combination of Tanaka, Iso, and Takano, is improper. Brucher and Dreschmann do not teach anything that would make the Examiner's attempted combination proper. Accordingly, this rejection is believed to be in error and should be withdrawn.

The Examiner rejected claims 7 and 15 under §103(a) as being unpatentable over Tanaka in view of Iso and Takano, and further in view of Teramachi and Dreschmann. Applicants respectfully traverse this rejection for the following reasons.

As noted above, the Examiner's attempted combination of Tanaka, Iso, and Takano, is improper. Teramachi and Dreschmann do not teach anything that would make the Examiner's attempted combination proper. Accordingly, this rejection is believed to be in error and should be withdrawn.

The Examiner rejected claims 8 and 16 under §103(a) as being unpatentable over Tanaka in view of Iso and Takano, and further in view of Brucher, Teramachi, and Dreschmann. Applicants respectfully traverse this rejection for the following reasons.


As noted above, the Examiner's attempted combination of Tanaka, Iso, and Takano, is improper. Brucher, Teramachi and Dreschmann do not teach anything that would make the Examiner's attempted combination proper. Accordingly, this rejection is believed to be in error and should be withdrawn.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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